Amendments to the Claims

Please amend Claims 35. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1.-34. (Canceled)

35. (Currently Amended) A method for continuously forming an optical film from a radiation curable liquid material comprising:

providing a mold that defines a shape for optical structures to be formed in the optical film;

placing the radiation curable liquid material in the mold;

radiation

positioning a radiation source such that it can irradiate the curable liquid material while the radiation curable material is in the mold;

overlapping a mask film on the a base film, the mask film being disposed between the radiation source and the base film, wherein the mask film comprises a pattern that further defines areas of the optical film where curved portions are to be made in the shape of the optical structures as would otherwise be defined by the mold alone;

positioning a radiation transparent base film adjacent to the radiation curable liquid material in the mold; and

simultaneously curing and patterning the liquid material by exposing it to the radiation source, wherein radiation passes through both the mask film and through the transparent base film at the same time, to reach the liquid material in the mold, and to thereby cure the liquid material and at the same time to pattern cured optical structures and further patterning the optical structures with the curved portions in their shape as a single step, the resulting curved optical structures thus being formed via differential exposure to radiation during the curing step, as caused by the mask film.

36. (Previously Presented) The method of Claim 35 wherein the optical structure is formed in a surface of the optical film, opposite the base film.

37. (Previously Presented) The method of Claim 35 wherein the radiation source emits ultraviolet light.

38. (Previously Presented) The method of Claim 35 wherein the radiation curable liquid material is a monomer is selected from polyester, urethane, epoxy acrylates or methacrylates.

39. (Previously Presented) The method of Claim 35 wherein the pattern is configured in the form of a logo, geometric form, or alphanumerics.

40. (Previously Presented) The method of Claim 35 wherein the pattern is formed on the mask film.

41. (Previously Presented) The method of Claim 35 wherein the radiation curable liquid is deposited between the base film and the mold.

42. (Previously Presented) The method of Claim 41 wherein the blocking pattern is removably placed on the base film.

43. (Previously Presented) The method of Claim 35, wherein the optical structures comprise linear prisms, lenticular structures, cube-corner prisms, lens structures, and/or sub-wavelength structures.

44. (Previously Presented) The method of Claim 35, wherein cured optical film is used in a display.

45. (Previously Presented) The method of Claim 43, wherein the display includes a liquid crystal display.

46. (Previously Presented) The method of Claim 35, wherein the pattern is used to mark the optical film.

47. (Previously Presented) An apparatus for forming an optical film comprising:

a mold for defining a shape for optical structures in the optical film;

a liquid material dispenser, wherein said liquid material dispenser feeds a radiation curable liquid material to the mold;

a continuous mask film, for defining a pattern that further defines areas of the optical film where curved portions are to be made in the optical structures therein;

a continuous base film dispenser, for feeding a transparent base film between the mask film and the mold; and

a radiation source positioned for simultaneously curing and patterning the liquid material by irradiating the liquid material through the overlapping mask film and base film, such that the liquid material is cured to form the optical film, and such that the curved portions as defined by the mask film are patterned in the optical structures at the same time that they are cured, via differential exposure to the radiation in an area of the radiation curable liquid material blocked from the radiation source by the pattern.

48. (Previously Presented) The apparatus of Claim 47 wherein the optical structures are formed in a surface of the optical film that is opposite a surface of the optical film that contacts the base film.

49. (Previously Presented) The apparatus of Claim 47 wherein said radiation source emits ultraviolet light.

50. (Previously Presented) The apparatus of Claim 47 wherein said radiation curable monomer material is selected from a material consisting of polyester, urethane, epoxy acrylates or methacrylates.

51. (Previously Presented) The apparatus of Claim 47 wherein the pattern is configured in the form of a logo, geometric forms or alphanumerics.

52. (Previously Presented) The structure of Claim 47 wherein a first cured portion has an index of refraction that is different than the index of refraction of a second cured portion.

53. (Previously Presented) The structure of Claim 47 wherein a first cured portion has a density that is different than the density of a second cured portion.

54. (Previously Presented) An apparatus for making a continuous optical film having parallel prism structures, the apparatus comprising:

a rotating cylinder mold having linear grooves formed on an outer surface thereof, the linear grooves used as a mold for defining the parallel prism structures with aligned peaks;

a liquid material dispenser, wherein said liquid material dispenser feeds a radiation curable liquid material onto the rotating cylinder mold at a dispensing location;

a first roller, for supplying a continuous, radiation transparent optical base film;

a second roller, for supplying a continuous mask film near the dispensing location, the continuous mask film having a pattern used in further defining features of the optical base film;

a first pinch roller, for placing the continuous mask film adjacent to the continuous optical base film near the dispensing location, and for positioning the optical base film and mask film against the rotating mold such that the optical base film is positioned nearest the rotating mold and the mask film is positioned outside of the optical base film;

a radiation source, disposed after the first pinch roller, for providing radiation for simultaneously curing and patterning the liquid material by irradiating the liquid material through the adjacent mask film and optical base film, such that the radiation travels first through the mask film and then through the transparent optical base film before curing the liquid material, and such that the radiation source causes simultaneous patterning of the liquid material, to thereby define the optical base film and form deformations in the prism peaks in an area of the liquid material blocked from the irradiation by the pattern;

a second pinch roller, disposed at a second location adjacent the rotating mold, for further holding the mask film and optical base film in position with respect to the rotating mold;

a first wind-up roller, for collecting the optical base film; and

a second wind-up roller, for collecting the mask film.

55. (Previously Presented) A method for making a continuous optical film having parallel prism structures, the method comprising:

providing a rotating cylinder mold having linear grooves formed on an outer surface thereof, the linear grooves used as a mold for defining the parallel prism structures with aligned peaks;

dispensing a radiation curable liquid material onto the rotating cylinder mold at a dispensing location;

continuously feeding a radiation transparent optical base film and a mask film, the mask film having a pattern used in further defining features of the optical base film, near the dispenser location;

positioning the continuous mask film adjacent to the continuously fed optical base film near the dispensing location such that the optical base film and mask film are placed against the rotating mold, wherein the optical film is positioned nearest the rotating mold and the mask film is positioned outside of the optical base film;

providing a radiation source for simultaneously curing and patterning the liquid material by irradiating the liquid material through the adjacent mask film and optical base film, such that the radiation travels first through the mask film and then through the transparent optical base film before curing the liquid material, and such that the radiation source causes simultaneous patterning of the liquid material while the liquid material is being cured, to thereby define the optical base film including in prisms having deformed peaks in an area of the liquid material blocked from the irradiation by the pattern;

separating the adjacent mask film and optical base film; and

thereafter, individually collecting the optical base film and the mask film.